

Application No.: 10/015,414

Proposed Amendment to Claim 5:

5. (Currently Amended) A method of erasing a non-volatile memory cell with a nitride tunneling layer, the non-volatile memory comprising:

a substrate;

the a nitride tunneling layer disposed on the substrate;

a charge-trapping layer disposed on the nitride tunneling layer;

a dielectric layer disposed on the charge-trapping layer;

a gate conductive layer disposed on the dielectric layer; and

a source region and a drain region disposed in the substrate beside the gate conductive layer;

the method comprising the steps of:

programming the charge-trapping layer with hot electron holes; and

applying a first positive bias to the drain region, applying a second positive bias to the gate conductive layer, and grounding the source region and the substrate to generate hot electrons/electron holes in a channel region, wherein the hot electron/holes electrons are injected into the charge-trapping layer through the nitride tunneling layer, and wherein said hot electrons combine with programmed hot electron holes in the charge-trapping layer to erase the non-volatile memory cell.